

3 Financial Management

“Economy in the public expense, that labor may be lightly burdened, I deem [one of] the essential principles of our government, and consequently [one of] those which ought to shape its administration.” --Thomas Jefferson, 1801.

“We must recognize that we now have an even greater responsibility to make sure that every state agency and every state program provides full value for the money that the taxpayers provide. That means continually looking for ways to reduce costs, and simultaneously looking for ways to operate more effectively.” --Governor Mark Warner, 2004

Financial management is a recognized strength of Virginia state government.

The Commonwealth of Virginia is rightly proud of its long-standing tradition of excellence in financial management. This tradition is based upon the historical focus of the state’s leaders on applying fiscal discipline and continuously searching for ways to make sure taxpayer dollars are wisely applied. This thread runs through all aspects of financial management, as evidenced by external recognition for operations, management, and innovation. Some of these distinctions are noted in Exhibit 3-1. The Commonwealth’s top ranking in financial management in the 2005 Government Performance Project is ample evidence of its continual progress towards its objective of being “the best managed state in the country.”¹

Exhibit 3-1 Virginia has been Recognized for its Tradition of Exceptional Financial Management



¹ Interim Report of the Council on Virginia’s Future, January 2005.

Commonwealth leadership realizes maintaining this position in a dynamic environment requires continuous improvement.

CGI-AMS is also a recognized leader in state government financial management.

At the same time, the Commonwealth's financial management leadership recognizes that maintaining this position in a dynamic environment characterized by changing constituent expectations, expanded regulations, and evolving technology, will require the Commonwealth to continue to make improvements. Internal, critical self-evaluations, such as those conducted by the Governor's Commission on Efficiency and Effectiveness and the reviews conducted by the Auditor of Public Accounts, have identified a number of general approaches and specific actions to further improve the financial management function in the state. Many of these recommendations are directly targeted at the benefits that would be gleaned from enterprise-wide approaches to a number of financial management areas. The VEAA Initiative is an effort to achieve some of these listed benefits and to perhaps identify even more.

CGI-AMS also has a long history of working with our public sector clients to help them achieve or maintain excellence through innovative approaches and solutions, particularly in the area of financial management. The cornerstone of our approach is diligently working to understand each client's objectives and cooperatively working with them to achieve their desired goals.

Team CGI-AMS's proposed Financial Management solution is based upon this philosophy; our understanding of Commonwealth objectives gained from our Due Diligence, interviews with numerous state leaders and staff, and our track record working with the state; and the insights gained from over 25 years of helping state and local governments improve their financial management systems and processes.²

In particular, our proposal includes three key elements:

- **The implementation of a modern, integrated financial system.** Our approach will address the issues and problems identified by Commonwealth personnel, yet permit retaining elements of the existing environment that meet the state's objectives.
- **The development of performance budgeting** and management support applications that will offer collaboration, workflow, and integration and analysis capabilities to support the Commonwealth's planned transition to performance-based budgeting.
- **New service delivery organizations focused on collecting** overdue receivables and maximizing claiming of available federal revenues to help the Commonwealth secure all funds to which it is entitled.

Our proposed solutions build upon recognized strengths in the current processes—most notably the balance between centralized and decentralized operations and

² During April-June 2005, a staff team from the Commonwealth of Virginia, IBM, and CGI-AMS designed, developed and executed a due diligence research process to gather information on 19 business functions in four business areas of the Commonwealth's Enterprise Business Architecture: administrative management, financial management, human resources management, and supply chain management, with the supporting function of application management. The team conducted a set of foundation interviews with key subject matter experts, administered electronic surveys to a sample of 46 agencies, and conducted a series of follow-up discussions with respondents. The team also used data generated by Commonwealth systems and research entities to validate survey information provided.

the expertise and commitment of the Commonwealth's workforce—rather than attempting to apply rigid, cookie-cutter approaches. We are proposing a number of different elements, technological and organizational, tailored for the Commonwealth in the various activities within financial management. And we are proposing a comprehensive program that achieves a long-term vision by implementing a steady stream of incremental, targeted improvements combined with the introduction of processes to provide the required funding for the Initiative. Throughout, we will leverage proven products, technologies, and approaches, introduce new ones where appropriate, and respect the Commonwealth's existing investments, decisions, and goals.

We believe that this proposal provides a number of important strategic and operational benefits for the Commonwealth, many of which are directly related to the concepts identified by the Governor's Commission on Efficiency and Effectiveness. These include streamlining operations, eliminating redundancies, providing information necessary for enterprise-wide management, improving collections, and providing a support infrastructure to leverage the skills and expertise of the Commonwealth's workforce.³

The following sections provide the details of each of these components:

- Financial and Operational Accounting
- Performance Budgeting
- Collections
- Indirect Cost Recovery.

³ *Final Report*. The Governor's Commission on Efficiency and Effectiveness, December 12, 2002.

3.1 Financial and Operational Accounting

The Issue	The Solution	The Benefit
A lack of integration spread across over 100 financial systems results in high costs, redundant processes, risks associated with dated applications, and an inability to readily provide managers at all levels with the information they need.	The implementation of a modern, integrated financial system, within the overall context of Service-Oriented Architecture, along with an accounting service bureau, consistent with the recommendations of the Council on Virginia's Future.	<p>Reduces costs, risks and improves operational efficiencies.</p> <p>Creates state-of-the-art reporting environment.</p> <p>Provide an application infrastructure consistent with Virginia's position among the states as a financial and technology leader.</p>

Financial and operational accounting is a critical business process in state government, one that is performed by all agencies, and one that impacts virtually every aspect of government from both tactical and strategic perspectives. It is also a process that the Commonwealth of Virginia traditionally performs exceedingly well, as evidenced by the wide range of external recognition received by the state for exceptional performance.⁴

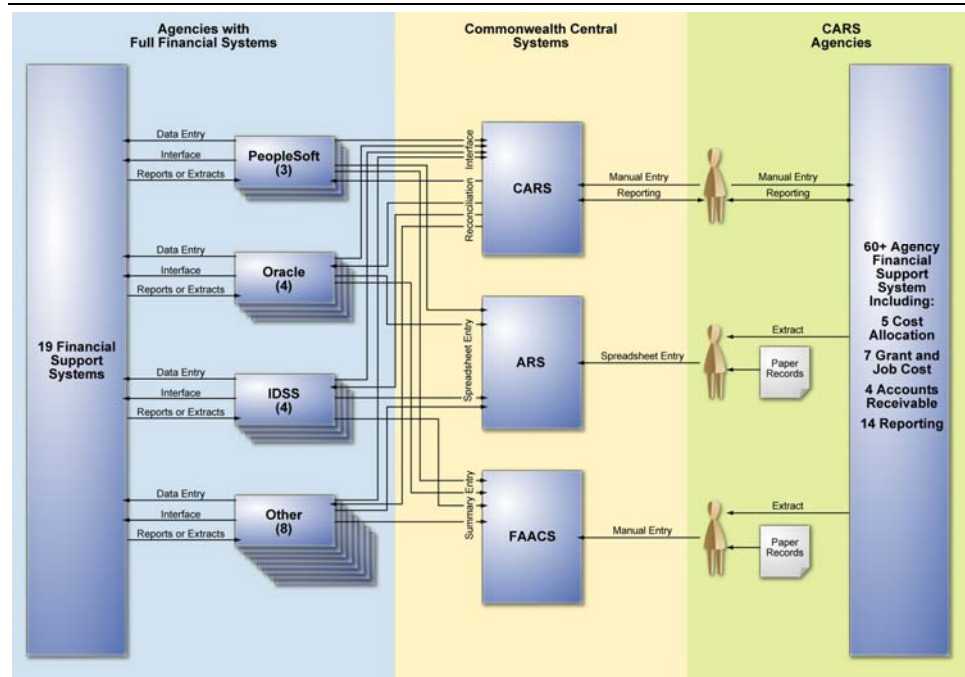
This tradition of excellence has even been retained over a period of budget cuts, reductions in finance staffing levels, and growing complexity in financial and operational accounting and reporting requirements. In large part, within the Commonwealth's decentralized management and operational philosophy, these performance levels are only achieved within the framework of a complex, costly, and growing financial system support technical infrastructure.

⁴ We learned in Due Diligence that the staff performing financial management functions see a strong interrelationship among the Enterprise Business Architecture functions of Accounting, Asset and Liability Management, Receivables, Payments, Reporting and Information, and the appropriation and budget control function of Budgeting and Finance. We also learned of their interests in an increased level of enterprise integration among these functions. Consequently, our Due Diligence information was gathered in line with a more integrated view of financial and operational accounting, and our solution is designed to respond to needs in each of the functions.

The Commonwealth operates one of the oldest central financial systems in the nation. Over time, more than 100 systems have been added to provide needed capabilities.

The Commonwealth's Central Accounting System (CARS) was designed originally to support cash-basis appropriation controls. While the system has been maintained over the years to continue to support this key process, it is now perhaps the oldest central accounting system operating in any U.S. state today. Since its implementation, government-wide accounting and reporting standards have become increasingly complex and sophisticated. And the needs of line agencies to support their organizations' missions have grown as well. As a result, the Commonwealth now operates over 100 different financial and operational accounting or support systems. These systems range from sophisticated ERP packages to single function PC-based applications. They run on a variety of platforms, and demand varying levels of maintenance and operational support. Exhibit 3-2 illustrates the current, complex environment.

Exhibit 3-2 System Configuration of Agencies Studied



VA BMR 7-05 028 v03

This configuration means redundancies, reconciliations, manual processes, and an increasing level of technology costs.

The complexity inherent in this structure inevitably means widespread paper dependency, redundant operations, extensive reconciliations, and numerous manual processes—along with a large complement of finance staff spending their time managing the complexities of the structure instead of directing their energies to more creative and analytical tasks in support of the Commonwealth's evolving strategic objectives and processes.

Commonwealth staff at all levels recognize the inefficiencies of the current structure. In both the Due Diligence interviews and surveys, staff identified a consistent set of new processes, systems, and capabilities that could streamline operations. While there was some degree of variation between agencies that operate their own integrated financial systems and those agencies that primarily rely on CARS, there was general agreement throughout the Commonwealth on

Commonwealth staff agrees on what's needed: integration, automation, powerful and flexible reporting capabilities, and modern technology.

the changes and improvements that would provide the greatest benefits to Virginia's financial operations:

- A much higher level of integration among the Commonwealth's central systems, and to a lesser degree, between central and agency systems.
- The availability of automated support for key business processes that the central systems are lacking. These include accrual based accounting, accounts receivable and billing, federal grant management, and encumbrance accounting among others.
- An overhaul of the management reporting processes and tools available for users at all levels. This includes an account classification structure that can address statutory requirements, external reporting, and the operating needs of the diverse agencies.
- A modern architecture that pulls all of the above together in a manner that makes basic operational processes easy and efficient.

All of the above are targeted at reducing the high level of manual and/or redundant processes and providing Commonwealth financial staff and executives with the tools necessary to manage a Fortune 100 size entity.

Commonwealth leadership also recognizes the opportunity to improve the process and has launched the Enterprise Application initiative as a vehicle to increase efficiencies, provide a working environment that best leverages the strengths of the Commonwealth workforce, and spends Commonwealth technology dollars in the most effective way for the state as a whole. Therefore, the financial and operational accounting components of the VEAA Initiative proposal involve taking proactive steps to increase the efficiency of an already effective process.

Team CGI-AMS proposes a modern, public sector-oriented, integrated financial system

To help the Commonwealth achieve its goals, Team CGI-AMS recommends the phased implementation of a modern, public sector proven, integrated financial system as the cornerstone of Virginia's enterprise application architecture. Such an application would address all of the key improvement areas identified by Commonwealth staff as shown in Exhibit 3-3.

Exhibit 3-3 How an Integrated Financial Management System Addresses Commonwealth Needs

Commonwealth Staff Recommends:	Integrated FMS Provides:
Integration of functions within finance and with other finance related business systems	<ul style="list-style-type: none"> ■ Single entry, simultaneous update across all affected modules ■ Consistency of data and user views across all processes ■ Current financial data available real-time ■ Team CGI-AMS project will connect the FMS to other, related business systems such as procurement and payroll
Full functionality for both central and agency operating needs	<ul style="list-style-type: none"> ■ Cash and Accrual based accounting ■ Flexible, extensive account classification structure with central and agency-specific components ■ Full range of financial modules supporting basic accounting processes and agency

Commonwealth Staff Recommends:	Integrated FMS Provides:
	requirements such as grants, job cost, and capital projects <ul style="list-style-type: none"> Automated period close and support for annual financial reporting
Comprehensive set of reporting capabilities for operational and management purposes	<ul style="list-style-type: none"> Wide range of standard reports Relational database Online ad hoc reporting tools Business Intelligence effort adds more functionality, such as KPI Dashboards
Modern architecture	<ul style="list-style-type: none"> Web-based Integrated Workflow Intuitive user interface Integrated Security and Controls Real-time processing Solid foundation for expansion of digital government via Service Oriented Architecture

A phased implementation will leverage and retain existing, valuable systems.

While such an application provides the potential to address the requirements of the entire government, both central and operating agencies, Team CGI-AMS recognizes that many agencies have already made a significant investment in administrative systems; these systems are an integral and effective part of the current environment. Thus, we would propose to implement a new financial system using a phased approach. The first phase would be to replace CARS.⁵ This would provide immediate benefits for DOA, for the agencies that use CARS as their primary system, and for agencies that are dissatisfied with their current environment. Over time, the Commonwealth would determine the appropriateness of expanding the scope to the remaining agencies based on a variety of factors or having some number of agency-specific systems remain.

While the Commonwealth will decide the actual implementation approach, Team CGI-AMS believes that a phasing strategy will best manage and reduce risks, and make certain that both statewide requirements and the needs of the most complex operating agencies are effectively met.

Implementing a Finance and Accounting Service Bureau could leverage expertise and reduce internal control risks.

Finally, we would explore with the Commonwealth the benefits of expanding the service bureau concepts currently in place for HR, Payroll, and to a lesser extent, Accounting. A key operational element of our proposed Initiative is the establishment of service bureaus, when warranted, that prove to increase effectiveness and efficiency, reduce costs, and enhance internal controls. These service bureaus, staffed by experts within their business processes, take on responsibility for providing common, repeatable services on behalf of Secretariats or groups of agencies. Implementing some form of Finance and Accounting Service Bureau could leverage expertise and reduce internal control risks.

⁵ Throughout this section, when we refer to CARS, we are including ARS, FAACS, and LAS as well.

The re-solutioning effort will reduce costs and complexity, reduce workforce demographics and dated technology risks, and leverage the general agreement in the Commonwealth that changes must be embraced.

Why would the Commonwealth undertake a re-solutioning effort for a business process that is generally viewed as achieving its objective? First, in a period where state government is constantly focused on efficient use of resources, the project offers potential cost saving opportunities measured in the tens of millions of dollars. Currently, the Commonwealth operates an unusually large number of systems to support financial and operational accounting. In general, the agencies that implemented these systems did so in response to deficiencies in statewide systems that adversely impacted their ability to execute their missions. The government environment is not static: without action to improve statewide systems, the number of such systems is likely to grow. The Commonwealth continues to receive requests from agencies to initiate projects to upgrade or install financial systems. And this does not even include the large number of smaller support type systems that agencies are constantly developing and enhancing. Obviously, the cost savings to be gained from the elimination of redundant systems is directly related to the number of agencies that adopt the new system. Acting now would stave off further development of agency specific modules, implementation of even more ERP products, and enhancements to existing systems, as well as eliminate the costs associated with some number of currently operating systems.

Second, while the current process works well, it is not without risk of potentially serious consequences. The Commonwealth faces an aging workforce and a degree of difficulty in recruiting new staff. This situation is not unique in the public sector. Many of these most experienced personnel are at the heart of the processes that make the current system work. A senior staff member at one agency only half-jokingly described the level of protection he desires for the key individual that has primary (and almost sole) responsibility for maintaining one of the state's critical systems. He recognizes the difficulty of acquiring a replacement with expertise in just the dated underlying technologies, much less the near impossibility of combining that expertise with knowledge of what is essentially an aged custom system.

Third, the degree of decentralization means important accounting decisions, with responsibility for proper application of accounting and financial reporting guidelines, is in the hands of a very large number of individuals spread throughout the organization using many different systems. As the experience level of these individuals' changes, it will become even more difficult to ensure that DOA, GASB, and GAAP directives are appropriately and consistently applied. As time passes, the risks to one of the pillars of the Commonwealth's management philosophy and external image will grow.

Finally, there is now general agreement throughout the Commonwealth on the weaknesses of the current environment and the impact of these weaknesses on operations and staff. A number of consistent themes and issues arose during Due Diligence. Thus, the Commonwealth will not have to invest time and resources convincing agency personnel of the benefits of a new enterprise system that addresses their most stated concerns. Rather, the change management and communications efforts will be able to immediately focus on how, not what.

CGI-AMS has performed similar projects successfully for 22 states—more than any other firm.

Team CGI-AMS is uniquely qualified to assist the Commonwealth with the implementation of a new financial systems architecture. Our staff has done similar work for over 300 state and local government clients—including implementing a central financial system for 22 states. This is more experience, and more success, than any other firm can claim. We recognize that the key issues to be addressed are not simply technology and standardization, but rather defining and implementing a solution that can simultaneously address the needs of both central control and operating line agencies. We are not dogmatic about system solutions or configurations and will not apply a cookie-cutter approach. Our experience in other states (where we have implemented single statewide systems, central systems effectively integrated with agencies' systems, and variants thereof) shows that the right answer for a particular state is one that considers the organization's culture, history, and management philosophy.

At the same time, CGI-AMS is well versed in how to deliver results in Virginia—especially in a benefits-funded context. Our benefits-funded work with the Department of Taxation has generated over \$230 million in incremental revenue for Virginia. Further, our benefits-based partnership with the Department of General Services on the eVA project has produced annual savings, with over \$69M in savings in 2004 alone. These results demonstrate what our partnership approach can deliver.

The following sections demonstrate in more detail the Commonwealth's current business condition and the elements of our financial and operational accounting solution.

3.1.1 As-Is Cost of Doing Business

Please see Appendix A for our calculation of the As-Is cost of doing business for all business areas.

3.1.2 Commonwealth Process Environment and Architecture

The Commonwealth in financial and operational accounting today: a standard of excellence, but with generally recognized opportunities for efficiency.

The bottom line regarding financial and operational accounting processes in the Commonwealth is a high standard of excellence. This applies to basic processing of payments and receipts, internal controls, and financial reporting. These results are due in no small part to the efforts and high standards of staff performing these functions in state government. However, these same individuals recognize that many of the steps required to achieve these results involve extensive manual effort, the execution of redundant processes, and the maintenance and operation of numerous and often duplicative systems. The redundant data entry, extensive reconciliation, dual corrections processes, and significant collation and aggregation of information from disparate sources for management and financial reporting are levying a tax on employee productivity.

The high level of decentralization has provided benefits, but also high operating costs, duplication, internal control risks, and the potential for increased risks and costs in the future. The current environment includes nearly 100 different finance-related systems in the surveyed agencies alone.

The information gathered during Due Diligence demonstrates that virtually every agency has taken steps or established processes and systems to address their internal requirements and comply with central mandates in an expedient and effective manner. Yet from the enterprise-wide perspective, the high level of decentralization has resulted in higher than necessary operating costs, duplication of systems and processes, the existence of internal control risks, and the potential for increased risks and costs in the future.

3.1.2.1 Process Environment

The current environment for financial and operational accounting functions is best summarized by the existence of nearly 100 different finance-related systems in the surveyed agencies alone. On a statewide basis, particularly if one included Higher Education, the number and complexity of these systems is likely to substantially increase. While this configuration is directly related to the Commonwealth's historically decentralized operating philosophy, it obviously results in redundancies, duplication of entry/error correction, and significant effort spent on data reconciliation.

- **General process flows and/or decompositions, including** starting and ending points. Transaction processing usually is initiated by the originating agency. Transactions that impact appropriation balances are processed into CARS. Other transactions may be processed in agency systems. Disbursements are made through CARS—either via check or electronic data interchange (EDI). Management reports are produced from various systems, depending on agency. Those agencies that do not use CARS perform regular reconciliation with CARS to ensure compliance with DOA directives. Agencies provide summary accounts receivable data via spreadsheets for entry into ARS. Fixed asset information may be directly entered into FAACS or interfaced at a summary level. CAFR reports are prepared based upon agency information provided on spreadsheets to DOA. The agencies provide the information needed to produce accrual-based reports. Please see Appendix B for business decomposition graphics for each of the six business functions in this area.
- **Variances, blockages, fragmentations.** In this area, the Commonwealth is generally standardized across the codes and functions provided by CARS. Outside of CARS, significant variances exist in systems and processes because agencies developed solutions to meet their own needs. Generally, these systems have evolved because CARS was unable to address an operating or reporting requirement that an agency deemed essential. Importantly, this unmet requirement list includes the ability to support accrual-based accounting, which is necessary for basic operations of certain agencies (mostly enterprise/internal service) and for preparation of the Commonwealth's CAFR.
- **Points of process intersection, integration, and conflict.** The financial and operational accounting process demands extensive sharing of data across its various sub-processes. However, with the exception of full applications operating within certain agencies, very little technical integration exists. Within this overall environment of multiple systems, the key statewide processes of disbursements, receipts, funds control, and annual reporting come together at DOA through a combination of automated

interfaces, dual entry, or exchange of spreadsheets to permit the Commonwealth to perform these statewide functions.

- **Controls and points of redundancies.** Appropriation control, as well as basic transaction coding edits, is enforced in CARS. Pre-audit is consistently enforced—either by DOA or authority delegated to agencies. Internal controls over transactions that are not processed through CARS are applied by the individual agencies.
- **Duplication of effort and data.** Given the large number of separate systems, dual data entry and error correction is common throughout the environment, as is extensive data reconciliation. As one reviews the list of accounting-related systems in Exhibit 3-4, it is apparent that the Commonwealth operates not only a significant portfolio of systems, but also a large number of seemingly redundant systems. For example, there are five Cost Allocation systems listed, in addition to the cost allocation capabilities provided in each of the comprehensive ERPs. As another example, DGS maintains in essence two separate ledgers—one cash basis and one accrual basis—in order to meet conflicting requirements, with many of the same transactions recorded in both. This is representative of just one of the variety of creative methods in which Commonwealth staff use the combination of existing systems and extensive manual procedures and spreadsheets to address central requirements and their own operating needs.
- **System instances and interfaces.** Exhibit 3-4 provides a list of financially oriented systems identified in the Due Diligence set of agencies. The first column indicates whether an agency uses its own multi-function application as its primary internal accounting system. The second column defines the number of additional financially-oriented systems operated by the particular agency. These support systems perform a wide variety of functions, with Grants Management, Cost Allocation, Billing/Receivables, and Management Reporting among the most common.

Exhibit 3-4 Financial Systems Operated by Due Diligence Agencies

Agency	Multi-function Financial System	Number of Other Supporting Systems
VDACS	FINSYS	2
DMHMRS AS	FMS	2
DCE		4
WWRC		2
TRS		2
DOA	CARS	7
DMME	Financial Mgmt Assistance	5
DMA		1
VFMA		1
LVA		1
VITA	PeopleSoft Financial	3
ABC	KPMG Performance	1
DOF		3

Agency	Multi-function Financial System	Number of Other Supporting Systems
VDOT	PeopleSoft Financial (FMS II)	3
DGS	PeopleSoft Financial	
DOAV		1
DSS	Oracle Financial	3
DCR	IDSS (also used by 3 non-surveyed agencies)	6
DEQ	Oracle Financial	
VEC	SESA	3
DOC/VCE	SyteLine ERP	
VSP		2
DPB		5
DMAS	Oracle Financial	
VDEM		4
DMV	Oracle Financial	1
VDH	Financial and Admin Sys	4
DVS		2
DCJS		2
DJJ		2
DGIF	Internal Accounting	2
NVTC		2

Given the diversity of operating platforms and agency responsibilities, integration among these systems is rare. This is true even for the state's central systems (FAACS, ARS, CIPPS, eVA, etc.). Interfaces between CARS and most of the major agency full financial systems are automated.

- **Process orientation (centralized, distributed, combination, etc).** Certain key functions are performed centrally. In particular, this includes control over cash, appropriation control on a cash basis, and aggregation of data for and preparation of statewide reports. Other financial and operational accounting functions are primarily decentralized, with the Commonwealth approach generally assuming that the agencies best know their requirements and are best positioned to address them. Thus, it is not surprising that a large number of systems to support agency requirements have developed.
- **In-sourcing, out-sourcing, co-sourcing arrangements.** For the most part, each agency operates, maintains, and enhances its own systems or uses the central systems offered by DOA, although there are a few instances of cross-agency servicing arrangements. A very high correlation exists between agency size and the complexity of its financial requirements, and whether or not it operates its own systems. DOA offers accounting services (as well as systems) to smaller agencies. Some small agencies have piggybacked onto the DGS ERP system. There may be other examples that were not identified during Due Diligence.
- **Legal considerations.** Many statutory and regulatory requirements apply to the Commonwealth's accounting and financial reporting. Perhaps the most

important are the seemingly competing requirements for cash basis appropriation control and internal reporting to comply with statutes and accrual based CAFR in accordance with GAAP and GASB standards for external reporting and bond ratings. There are many other regulations such as Prompt Payment, Debt Offset, and compliance with various federal grant accounting and reporting requirements. However, none of these requirements is unusual in the state government environment. The solution selected and implemented will address these requirements..

3.1.2.2 Strengths and Weaknesses Review

The Due Diligence review process afforded Commonwealth staff the opportunity to provide their perspective on the strengths and weaknesses of the current environment. Undoubtedly, the greatest strength of the process is that despite the costs, complexities, and level of effort required, Commonwealth staff has been able to make the process work.

Commonwealth personnel have optimized the current environment, within the constraints they face, from the perspective of their individual agencies.

CARS can handle payments and receipts for cash basis processing in a timely manner and effectively supports cash basis control. Agencies that need more sophisticated or specialized functionality have been able to develop specialized systems—or implement complete financial solutions. Interfaces have operated consistently over an extended period. Financial officers throughout the Commonwealth know the drill for preparing the CAFR. DOA can perform annual close on a very compressed schedule. Other strengths were listed by Commonwealth staff:

- Benefits of ReportLine compared to previous reporting processes
- Compliance with statutes, including Prompt Payment Act
- Growing use of EDI and P-Cards.

Finally, from the perspective of many of the less complex agencies, the functionality provided by CARS is sufficient for many of their fundamental business processes.

From an enterprise management view, a number of important weaknesses and risks exist within the overall business process:

However, this environment is characterized by a number of fundamental weaknesses, particularly from an enterprise perspective.

- **A lack of functional or technical integration between systems.** This is the root cause of the high level of effort expended on redundant entry, error correction, and system reconciliations. The need for and benefits of integration was a consistent theme.
- **Complexity, cost, and risk of operating and interfacing approximately 100 accounting-related systems.** Each of these applications requires some level of technical support and an understanding of other related systems and data. Many are homegrown. Some, such as CARS, are no longer supported or enhanced by the original supplier. And it is becoming increasingly difficult, if not impossible, to attract personnel with the requisite expertise to work on systems using dated technology.
- **Lack of consistency and standards across agencies and associated internal controls risk.** In order to perform basic accounting operations, agencies must use CARS coding conventions and be able to interface a subset of their transactions. Much of the remaining accounting process, including a great deal of the process that underlies the Commonwealth's

financial statements, is being handled and defined at the agency level—including agency interpretation of DOA directives. Recent staff reductions have resulted in a significantly reduced level of audit and central oversight of these processes and controls. At the same time, Commonwealth executives are facing the implementation of GASB 34 reporting requirements and the potential for Sarbanes-Oxley-style standards being applied to the public sector.

- **Lack of flexibility and timeliness of statewide management information.** The only common account classification structure across the Commonwealth is the basic CARS coding block. No easy way exists for executive management to aggregate data any other way—even if other dimensions are essential for strategic analysis. Further, much of the data needed for flexible statewide reports is maintained in multiple systems—some of which are not readily accessible by powerful tools. Thus, management decisions might have to be made using less than the most current information.
- **Many sub-processes, especially CAFR preparation, remain totally manual or extremely labor-intensive.** The lack of functionally rich central applications leaves many small or mid-size agencies without certain capabilities or struggling to find their own solutions.
- **Lack of accrual accounting based foundation.** While the trend in government accounting, particularly with GASB 34, is toward full accrual accounting, the Commonwealth's primary central systems are cash basis. This impacts CAFR preparation and reporting, and has forced certain agencies to find alternative ways to handle basic daily operations.

The agencies that participated in the Due Diligence survey highlighted many of these conditions as areas of concerns, but, importantly, also as opportunities for improving the underlying support for the financial and operational accounting process in Virginia. Exhibit 3-5 shows the common threads identified by Commonwealth personnel serving agencies most dependent on CARS in terms of the most pressing problems and solutions.

Exhibit 3-5 Representative Commonwealth Staff Concerns and Recommendations

Weakness	Staff Comments
Lack of Integration	<ul style="list-style-type: none"> ▪ "We need an integrated system. Significant effort is required to process transactions in this essentially manual environment." ▪ "Integration of systems so that data can be pulled without resorting to manual processes or spreadsheets" ▪ "Integration of CARS, ProBud, eVa, PMIS, CIPPS, and WebBears" ▪ "Lack of integration between all these different systems 'owned' by different agencies" ▪ "Replace CARS with an integrated system that provides the functionality that agencies obtain with their own ERPs"
Lack of Required Functionality	<ul style="list-style-type: none"> ▪ "Accrual based accounting" ▪ "Encumbrances, flexible enough to meet agency needs" ▪ "Need the Central accounting system to capture accruals and obligations"

Weakness	Staff Comments
	<ul style="list-style-type: none"> “Expanded coding structure to capture more detail/codes for agency use” “Accounts Receivable and Billing” “Federal Grant Accounting and Reporting”
Reporting Limitations	<ul style="list-style-type: none"> “Need online report and inquiry to meet management needs” “Real-time information; on-demand reports” “CARS does not provide information for us in a timely manner” “More flexible reporting capabilities” “A new Financial System to create a better reporting process”
Dated Technology	<ul style="list-style-type: none"> “Web-based, current technology for better input and error correction” “Web-based, user friendly design” “Streamline data entry” “Online, not batch systems” “CARS is a dinosaur; outdated; obsolete”

This list of strengths and weaknesses is consistent with our own understanding of the situation and our experience with this process in other large public sector organizations. It is important to note that the method used in Due Diligence asked respondents to focus on their particular situation and not look at the issue from a Commonwealth-wide perspective. When this additional perspective is added, the overall level of redundancy and manual effort, as well as associated costs, becomes even more apparent.

It is the combination of the opportunity to reduce costs and improve the support given to Virginia’s financial staff that drives our recommended future solution approach.

3.1.3 Reengineering and Re-Solutioning Opportunities

Team CGI-AMS strongly believes that a complete solution to a particular client’s business concerns involves much more than simply installing new technology. Rather, a complete solution is the integration of technology, process, people, and approach in a manner that recognizes the unique aspects of our clients’ current situation and future objectives. The solution we envision for Virginia’s VEAA in the area of financial and operational accounting considers all these elements, with the specific characteristics of each one to be determined by Commonwealth management. In particular, the recommended solution would include three elements:

- A modern, public sector-oriented, integrated Financial System as the core of the new architecture. At a minimum, this commercially available application would replace CARS and a significant percentage of the function-specific modules that have been developed by many agencies to address CARS deficiencies.
- A service delivery organizational structure that recognizes the wide range of differences among the various Commonwealth agencies and provides the flexibility for each agency to execute business processes in the manner and with a staffing structure that best meets its needs.

We will build upon Virginia’s strengths with an approach tailored for the Commonwealth.

- A phased implementation approach that gives the Commonwealth the opportunity to carefully control costs and risks, and to make implementation and rollout decisions based upon both project performance and other future conditions.

The implementation of a new integrated ERP as a cornerstone of the Commonwealth's financial management process will provide many benefits, as shown in Exhibit 3-6.

Exhibit 3-6 Benefits of a New Financial System

SIGNIFICANT COST REDUCTIONS vs. STATUS QUO, particularly if the new system becomes the statewide standard.

- Eliminating costs for software maintenance fees
 - Eliminating costs for upgrade projects to existing systems
 - Eliminating potential projects by agencies to replace unsupported systems
 - Eliminating projects by agencies to replace CARS as their primary system
 - Reducing development and support costs of redundant financial modules
 - Reducing level of technology infrastructure required
-

OPERATIONAL EFFICIENCIES

- CAFR preparation based upon consistent, accrual-based ledgers
 - Elimination of redundant data entry and reconciliation
 - Introduction of automated workflow
 - Reduction in effort to produce specialized reports
 - Enhanced capture and classification of reimbursable costs
 - Expansion of vendor self-service research
 - Real-time visibility and control over A/R, Inventory, Fixed Assets, and other assets on a standard basis
 - Expanded opportunities for APA focused audits
-

INTANGIBLE BENEFITS

- Standardized processes and sharing of best practices
 - Reduced risk associated with dated applications and aging workforce most familiar with them
 - Better positioning if SOX-type requirements are placed on state government
 - Expanded citizen access to Commonwealth financial data
 - A more attractive professional growth environment for financial and technical recruits
 - Application infrastructure consistent with Virginia's economic development message of technology leadership
-

The financial and operational accounting solution is, of course, only one component of the overall VEAA Initiative. When the entire project is complete, it will operate in close concert with the other functional areas. The early project conceptual design tasks will make certain that capabilities implemented later in the effort integrate with earlier project components.

Our approach is not dependent on completing or terminating any active projects.

We understand that the Commonwealth has a number of projects planned, or underway, which overlap with the scope of this Initiative in this functional area. Some, such as the project at TAX, are nearing completion. Others, such as projects at VDOT, are at a much earlier stage in the project life cycle.⁶ Our proposed approach recognizes the decentralized nature of Commonwealth operations and offers a phasing strategy and flexible system architecture to address it. Thus, our proposal does not depend on the completion of any active project nor does it require any project to be terminated. Rather, we would assist the Commonwealth in assessing the cost/benefit and schedule of any such project in light of this partnership effort, and the Commonwealth will determine the appropriate disposition for each one.

The following sections describe in more detail the key elements of the recommended solution.

3.1.3.1 Process Recommendations

The process will be consistent with Virginia management philosophy, not a “forced-fit” single practice.

On a macro level, Team CGI-AMS does not recommend significant re-engineering of the financial and operational accounting process because the fundamental process, as evidenced by results, is not broken. State government is in many different businesses, with resulting organizations of varying size, complexity, and geographic dispersion. Thus, it is futile and probably counter-productive to try to impose a single “best practice” model on the entire organization. Even with the implementation of the VEAA, there will remain central requirements, control and oversight provided by DOA, agency compliance with these central mandates, and a significant amount of agency specific information collection, processing, and reports. This is totally consistent with Virginia’s management philosophy.

Rather, the recommended approach by Team CGI-AMS is primarily focused on providing Commonwealth staff with an applications infrastructure that will permit them to perform these processes more efficiently—faster, cheaper, with less manual effort. For the most part, this involves the appropriate deployment of modern integrated technologies. It also includes providing agencies with the flexibility to use expertly trained staff to provide these services for them if their particular strategy or operating model warrants it.

This approach will permit the Commonwealth to redirect time spent on routine, redundant, mechanical steps necessary in the current environment to more analytical, creative, mission-critical tasks. For example, integration of general ledger and grant accounting will permit agencies to capture and bill all appropriate costs, instead of entering data in multiple systems.

3.1.3.2 System Approach

At the heart of the Financial Management component of the VEAA will be a commercially available integrated financial system. Keeping in mind the key central requirement of cash-basis appropriation control for which it was designed, CARS has long served the Commonwealth very well. However, as the business needs of the Commonwealth have grown and changed due to internal

⁶ We reviewed the list of ITIB approved projects and believe that this approach will accommodate agency-level projects.

The new system will meet central requirements and address operating agency needs.

We will implement the commercial product that is best for Virginia as selected by Virginia.

and external demands, and as technology and user expectations have evolved, it has become increasingly difficult for CARS to keep pace. In our view, it will become even more difficult in the future.

Given the Commonwealth's decentralized operating management philosophy, coupled with the desire for a broader enterprise-wide perspective as embodied in VEAA Initiative, the initial implementation of a new system would most likely be a replacement for CARS, as opposed to immediately replacing all financial systems in the state. It would provide complete support for all required central functions on a modern platform that will significantly expand the functional and analytical capabilities available to DOA. Likewise, it would substantially increase the range of supported business functions and information retrieval processes available to those agencies that currently use CARS as their primary accounting system. This would result in the elimination of supporting systems operated by these agencies to address CARS deficiencies, as well as provide a solid option for agencies now considering alternatives to CARS.

A number of commercially available software packages on the market today can successfully meet the requirements of large, complex, public sector organizations. It has probably been over twenty years since any state or large local government has pursued an in-house or customized approach. Team CGI-AMS is not recommending any particular product at this time. Rather, product selection would be done by the Commonwealth after we jointly conduct an analysis to document Virginia requirements (both central and agency-specific); evaluate the goodness of fit of leading products; evaluate business agreements currently in place in the Commonwealth and the Commonwealth's satisfaction with these products; and determine compatibility of vendor strategies and future direction with Virginia's strategic objectives.

It is safe to state, however, that whatever product is selected must provide the following functional capabilities:

- General Ledger, including transaction processing, period-end processing, and Cost Allocation
- Accounts Payable, including various disbursement mechanisms and support for intergovernmental transactions
- Billing, Accounts Receivable, and Receipts
- Appropriation and Budget Controls
- Fixed Asset and Lease Accounting
- Encumbrance and Procurement Accounting
- Inventory Accounting
- Cost Accounting, including Jobs, Work Orders, and Activity-based Costing
- Capital Project Management, Accounting, and Billing

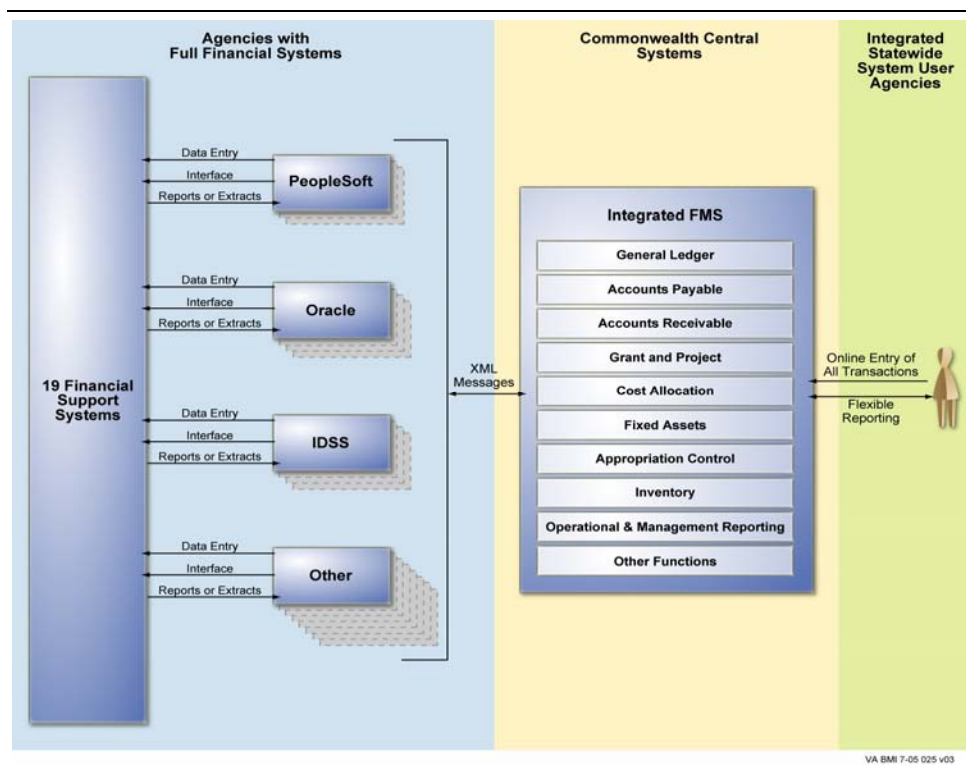
Further, the application as a whole should have the following characteristics:

- Support for both cash-basis and account-basis accounting
- A flexible and extensive account classification structure
- Integration of all modules based on single data entry
- Central and agency-required business processes

- A modern technology foundation supporting transition to a Service-Oriented Architecture
- A web-based, intuitive user interface
- Embedded workflow processing
- Integrated and powerful reporting capabilities including business intelligence tools, decision analytics, and management performance dashboards, as well as a variety of standard reports, inquiries, and tools.
- Comprehensive Security and internal controls
- Integration, or seamless interfaces, with applications supporting related business functions such as procurement, payroll, and travel.

Exhibit 3-7 presents the revised and significantly streamlined system flow after the initial implementation.

Exhibit 3-7 New Financial System Flow



In total, a new system providing these capabilities will address virtually all of the deficiencies identified during Due Diligence and permit Commonwealth financial staff to continue to perform with excellence, but more efficiently in terms of time allocation and costs.

Beyond the replacement of CARS with a to-be-selected integrated ERP, a number of alternative configurations exist to achieve the Commonwealth's goal of effective and efficient enterprise architecture for financial and operational accounting. In particular, the key issue will be how to address the requirements of agencies that do not currently use CARS as their primary financial system.

The final configuration will balance statewide and agency systems as determined by the Commonwealth.

We will utilize the Commonwealth's proven organizational model: central oversight and control, agency authority and responsibility, and a service bureau to leverage limited expertise.

Team CGI-AMS has worked with many state governments in this area. We have implemented statewide configurations with a range of designs, including:

- All agencies operate from the same version of the central financial system (e.g., Massachusetts)
- All agencies use the same product, but separate versions are operated by the most complex agencies (e.g., Alabama)
- Certain agencies use products other than the central system, either permanently or as a part of a phasing strategy (e.g., Arizona)

The best approach for any state depends upon factors important and sometimes unique to that state, and Virginia will make that choice—and then decide on the final implementation plan and system configuration.

3.1.3.3 Organizational Approach or Service Delivery Model

For the most part, the decentralized model employed by the Commonwealth for performing the accounting function works well. There is a clear delineation of responsibility between central and operating agencies. The overall control and oversight responsibilities must remain with the central agencies. At the same time, particularly for large agencies, the accounting function is so closely tied to mission-critical processes that it could be detrimental to change. Therefore, we would not recommend significant changes in organizational responsibilities for performing the financial and operational accounting process.

However, for a number of smaller, less complex agencies, the accounting function may be viewed mostly as an administrative burden. A limited number of financial staff, or personnel performing financial functions along with other duties, are typical constraints for these agencies. This type of environment can make it difficult to attract employees with the right level of financial expertise, and to ensure that appropriate internal controls are established.

Team CGI-AMS believes there is a benefit to the Commonwealth in establishing a Finance and Accounting Service Bureau that would provide finance and accounting related services to a set of these agencies. The Service Bureau would perform functions such as authorized pre-audits, transaction processing, error correction, vendor/customer response, and specialized data request and reporting. We are recommending a similar approach for HR/Payroll, and these bureaus may wind up being organizationally combined.

Examples of these service bureaus already exist in Virginia: the Payroll Service Bureau at DOA, the human resources service bureau at DHRM, the accounting offerings from DOA, and the cross-servicing agreements in DGS.

Expansion of the concept will provide

- Economies of scale, particularly if the various units are combined
- Maximized leverage of a small number of financially experienced staff
- A more expansive career path for these same individuals
- A reduced demand for recruiting by agencies that use this service
- Elimination of an administrative burden for certain agencies, with additional focus on core mission

- Reduction in number of basic operational audits needed to be performed by DOA.

The Service Bureau's structure, staffing, and funding mechanism would be determined during implementation, based upon the number of agencies that elect to use the Service Bureau. A task would be included in the project plan to educate agencies regarding the approach and to assist them in performing a cost-benefit analysis as an aid in making their decision.

3.1.3.4 Transition or Implementation Path

Many different paths can lead to the goal of effective and efficient enterprise application architecture for financial and operational accounting. These paths consider the implementation staging of functional capabilities and the sequence of transitioning specific agencies into the Enterprise Application Architecture. Team CGI-AMS's experience has convinced us that any approach must consider a number of factors:

- Current state of both central and agency systems and associated investments
- Available resources
- Competing projects
- Overall management philosophy, particularly in regard to degree of centralization
- Readiness for change
- Sophistication of technology infrastructure.

As one of the first project tasks, we will work with the Commonwealth to determine the best transition path for Virginia. Based upon our current understanding of the Commonwealth, we anticipate that some variant of a phasing approach will be most appropriate. One potential phasing approach builds on the fact that Commonwealth's line agencies generally fall into three groups in terms of their financial and operational accounting infrastructure.

- **Group 1** – Agencies for which CARS is generally sufficient to support all accounting functions (e.g., DOA and DVS)
- **Group 2** – Agencies for which CARS can support basic accounting, but that also operate some additional supporting systems to address CARS deficiencies (e.g., VSP and VDEM)
- **Group 3** – Agencies that have implemented fully independent financial systems and just interface required data to CARS (e.g., DGS, VDOT, ABC, and VITA).

During Phase 1 of the VEAA Initiative, Team CGI-AMS and the Commonwealth will define the functional requirements of an enterprise financial management system. Team CGI-AMS is aware of at least one effort within the Commonwealth that defines the requirements of a financial management solution: the Virginia Department of Transportation's financial management system upgrade. We could leverage this work in defining the enterprise financial management solution's functional requirements. These requirements will be used to evaluate available financial management COTS solutions. Importantly, in defining the state's requirements for purposes of product selection, we would want broad participation from state agencies—even those that do not use CARS

We will consider factors unique and critical to the Commonwealth in developing a phasing approach.

All agencies participate in Design to create an enterprise-wide perspective on functionality.

Implementation focuses first on agencies that will receive the greatest benefit.

and may never use the new system. We believe that it would be prudent to select the system that best serves as an enterprise-wide foundation to provide the Commonwealth with maximum flexibility going forward

During Phase 2 of the VEAA Initiative, we propose replacing CARS with selected enterprise financial management COTS solution. The system that replaces CARS will possess the key functions and capabilities described previously.

The initial implementation would be executed using the methodology and approach described in Chapter 9 of our proposal over an 18-24 month timeframe. Using the same rationale as for package selection, the design phase would address Commonwealth-wide requirements—though actual development would focus on the requirements of Group 1 and 2 agencies. The new system would then be implemented as the CARS replacement for the Group 1 and Group 2 agencies. Focused analysis would be done for each of the Group 2 agencies regarding existing accounting support applications. We believe that effective package selection and design should eliminate the need for most of these systems. However, the Group 2 agencies would make their own determination about replacing or interfacing these systems. The Group 3 agencies may either elect to join the new enterprise financial management system or continue to operate their existing systems and simply plug into the VEAA.

The new system should also replace ARS, FAACS, and LAS by providing additional integrated functionality in these areas. At the same time, the project team would stand up the financial service bureau described in the previous section.

The rollout of the new financial management solution would occur during Phase 3 of the VEAA Initiative. The rollout project would build upon the success of initial implementation and will be based on the determination of the Commonwealth and the remaining agencies regarding how to proceed. The rollout would include the phase-out of remaining Group 2 agency applications where the new system provides better functionality or another compelling business case. It would also include the transition of Group 3 agencies that elect to use the new system. For purposes of our proposal, we are showing this rollout effort as another 24-month effort. However, the actual duration will be dependent on the number of agencies that elect to convert.

Given the overall number of projects within the Initiative, we suggest beginning the financial effort near the end of the Human Resource Management project. As such, the benefits would accrue more than 24 months after contract signing. Again, the Commonwealth will determine the actual implementation approach and schedule.

3.2 Collections

This section redacted for proprietary content.

3.3 Cost Recovery

This section redacted for proprietary content.

3.4 Performance-Based Budgeting

The Issue	The Solution	The Benefit
The Council on Virginia's Future recommends that the Commonwealth link disparate budgeting practices including strategic planning and performance measurement, fostering greater transparency in resource allocation decisions.	The implementation of a collaborative budgeting system that shifts agencies and departments from incremental budgetary decisions to strategic evaluation and management.	Creates an environment focused on continuous improvement where analysis is focused on finding solutions to complex issues and allocating resources to benefit the citizens of Virginia.

The Commonwealth has a very clear vision of maintaining excellence in financial management, improving the allocation of public resources, and creating an environment for continuous improvement and problem solving. Moving towards this vision is a challenge, because new processes need to be created and old approaches refined, improved, and reengineered. In concept this may appear straightforward—but in reality, long-term participants in a process are naturally comfortable with traditional approaches to management and work procedures. Adapting to structural change requires recognition that this is not another exercise or a recasting of traditional processes and procedures, but a complete retooling of the system.

In performance budgeting, the Commonwealth is embarking on the comprehensive integration of several best practices that have been in various stages of use for several years. The use of strategic planning, service area plans, performance measures, and performance budgeting is not new to the Commonwealth. However, the tight integration of these formerly disparate systems into the biennial budgeting process is a significant change.

The Commonwealth is at an inflection point, with its strategic direction influenced by increased service demands and restricted resources.

Implementing new software systems provides the user community with improved understanding of current processes and their limitations.

The Commonwealth is at an inflection point. The ability to forecast program needs, provide financial and program services at consistent levels across the entire enterprise, and ensure reliable funding is slipping as demands grow and local governments and service providers supply an increasing share of services. As programs become increasingly complex to administer, deliver, manage, and fund, the central enterprise is becoming more challenged in comparing and isolating both problems and successes. Similar operations and business processes across the enterprise become harder to differentiate, to monitor, and to improve. Failure to change this direction will precipitate a downward pattern that over time becomes more difficult to correct. Appropriated funds will chase inefficiencies and no longer be optimally applied. The actual tipping point (inflection) will not be known for years; nevertheless, actions initiated today will at a minimum slow down or even eradicate some of the downward pressure. Creating an environment that supports change and simultaneously promotes the initiatives proposed by the Council of Virginia's Future is required.

We recommend that the Commonwealth continue on its path to collaborative performance based budgeting. And we recommend a key catalyst for encouraging and supporting this change: a new budgeting software solution, the use of which will significantly streamline the budgetary processes used by agencies to prepare and present their budget requests.

Through use of software that integrates strategic planning, performance measurement, decision packages, and incremental budgeting into budget development and review, analysts can focus less on data collection and calculations and redundant data entry, and focus more on improving data reporting and analysis. Even more important, analysts have the opportunity to better understand their agency's own business. Therefore, implementing new systems encourages users to address current process inefficiencies while simultaneously reflecting on goals, objectives, purposes, best practices, and performance metrics. When agency analysts and managers can direct attention to identifying and addressing in the budget request problems that disrupt service delivery and limit productivity, the budget request takes on more strategic and real-world relevance.

3.4.1 As-Is Cost of Doing Business

Please see Appendix A for our calculation of the As-Is Cost of doing business for all business areas.

3.4.2 Commonwealth Process Environment and Architecture

The Commonwealth has invested in creating a vision for tomorrow. However, forward progress is obstructed by underlying tools and historic business processes that have not been adapted to support the changes necessary to realize this vision. The Commonwealth continues to maintain both human and technical systems that were developed for single purposes—purposes that were often replicated and then individually improved and altered within each silo. In budget development and review, like many other areas, business processes were adopted, improved, and modified to meet the specific needs of individual agencies, including the Department of Planning and Budget. This condition is demonstrated by the following symptoms:

- **General process flows and/or decompositions, including starting and ending points.** The budget development process is primarily designed and operated by the Department of Planning and Budget. Forms and processes for requesting and justifying budget requests are centrally developed and distributed to the agencies for completion. At a high level, every agency performs the budgeting process in a similar style. However, agencies apply their own internal procedures, software tools, and analytics. Every process, from personnel and revenue forecasting to goal and priority setting, is approached independently. Budgets are developed at a cost center level, consolidated for an agency, and reentered into enterprise budget systems. The consolidation and re-entry of data occurs throughout the process until the enactment of budget appropriations. Please see Appendix B for business decomposition graphics for the Budgeting and Finance function.
- **Inconsistent measurement and accountability for similar services and processes.** As illustrated by the Commonwealth's Enterprise Business Architecture, many similar business processes are performed across the enterprise. Processes like accounting, travel review, vehicle maintenance, budgeting, grants processing, and many more are regularly performed in each of the agencies. However, managers have no way of measuring, examining, and learning from agencies that provide outstanding examples of performance in these areas. Open comparison helps create an environment of continuous improvement. By measuring performance, managers can isolate issues, adopt alternatives, and improve operations. The key issue is the Commonwealth's inability to track like services and obtain baseline results.
- **Re-keying and duplication of effort.** Throughout the budgeting process, information is re-keyed and re-entered into numerous systems. Agency personnel enter information into their accounting systems, Excel budget sheets, decision package forms, and the like. This process is often replicated by agency budget analysts prior to submission to DPB, only to have DPB perform a similar re-entry process once again. Each time the data is summarized, details useful for comparison and justification are lost in the process.
- **Insufficient workflow to support review and collaboration.** The budgetary process should reflect fine-tuned examples of collaboration. Agencies requesting funds need support and guidance from DPM, while central budget analysts need information and supporting documentation from the departments to bring their case forward. Both sides need to work together to gain stakeholder support throughout the process. Current systems do not support the interactive transmission of budgetary changes, justifications, support documents, and editorial comments.
- **Inability to support dynamic analytical requirements.** Budget analysis requires constant probing and analytical review of data. Each evaluation is unique, requiring new data and with changing dimensions and relationships. Queries cannot be prepared in advance—and their results are often unpredictable. The only predictability is that the topic and the required data is unknown in advance. Therefore, pre-configuration is not a solution, it is a problem: it restricts the creative forces of program review.

Over time, the budgeting process changes. Best practices, community needs, key stakeholders, and senior managers all contribute to a dynamic process.

Although historical and statutorily defined rules may be slow to adapt, presentation and data-gathering requirements will shift every few years. Business processes and systems need to be agile to accommodate rapid change.

- **Difficult to demonstrate accountability.** Current systems do not provide audit trails when data is changed and re-keyed from step to step. It is difficult to reconstruct what happened and why. This creates a hiding ground: decisions without risk and accountability are instituted.
- **Limited transparency into the decision-making approach.** Tracking original requests changes and reasons for change are extremely difficult. Agency requests and their corresponding motivation (justification) are lost in the process. Stakeholders without information on unfiltered needs are challenged to reallocate resources in both current budget process and in the out-years. Citizens and participants have no view of the decision-making process and the rationale for making incremental or significant program changes.
- **Designed to support silo missions.** The budgetary process does not provide a vehicle for sharing statements of need or the ability to collaborate on solutions. Each step of the process supports silo missions and not the very large activities that are shared throughout the enterprise.
- **Standalone systems.** Each of the budgetary systems is independent with limited integrations. Data is either re-keyed or batch updated. Common rules that support similar systems are independently developed and deployed. Data is inconsistent or impacted by time gaps.
- **Unstructured data.** Data has been added to many of these programs on an as needed basis. Data is not well structured and subsequently challenging to query and probe. Data is not structured in an approach where analysts can easily inquire and compare.

The vision of integrating strategic planning, performance measurement, and line-item budgeting requires both management direction as well as a supporting system to serve as catalysts for change.

3.4.2.1 Process Environment

The budgeting process is undergoing a great deal of change: business processes are presently being modified to encompass strategic and service area planning. Some of the budgetary processes for the next biennium may change as managers reflect on their efforts to emphasize planning, measurement, and evaluation when compared to incremental budget decisions and technical adjustments. Nevertheless, the evolving process environment will continue to face some of the following hurdles:

- **Variances, blockages, and fragmentations.** The budgeting process encourages the participation of stakeholders, experts, and the general community. At the agency level advisory boards and commissions, service providers, and local governments combine to impact the direction and allocation of financial resources and personnel. Unfortunately, agencies do not have the resources to meet many of the identified needs outlined by these active communities. Allocation decisions require research, analysis, and negotiations. The effort and time currently required to locate, transpose, and

interpret existing program data is a limiting factor in staff's ability to develop and analyze policy, procedural, and operational alternatives.

- **Points of process intersection, integration, and conflict.** The budgeting process necessitates the sharing of data—but agencies and central budget analysts have naturally opposing needs for information use. Agencies need data for persuasive advocacy of their budget requests, and budget analysts need tools to probe and review data independently. Today's environment fails to provide this information at any reasonable level of detail. Analysts are not readily exposed to internal operations and data and are thus not challenged to ask the right questions.
- **Controls and points of redundancies.** The budgeting process by design has several steps that ensure duplicative control and review. Budgeting in the Commonwealth applies a bottom-up approach. It ensures that managers from the lowest levels of the organization may request resources to fulfill and improve their specific operations. This process creates redundancies and controls at each review phase.
- **Duplication of effort and data.** Currently, almost every system used in the budgetary process requires redundant data entry. Data is prepared in the agencies at the cost center level, reviewed, collected, and reentered for Agency perspectives. This is once again repeated by the Department of Planning and Budget. Budget forms are often summarized and then reentered into multiple databases. Nowhere in this process is information entered once and routed by automated workflow. Each step of the process requires the information to be aggregated, re-keyed, and reinterpreted. Summary information may be transmitted in office documents only to be re-keyed at subsequent levels. Data in WebBears will have been re-keyed prior to entry, will be re-keyed once again at DPM, and re-keyed again once final appropriations have been completed.

Simultaneously, this information becomes more restricted to a smaller user community, where transparency is eliminated and the ability to disseminate decisions back to agencies or harness their support in refining solutions or alternatives becomes almost impossible.

- **System instances and interfaces.** The distributed nature and independence of Commonwealth agencies promotes a proliferation of systems requiring interfaces. Agencies utilize systems that provide functions that are specific to their needs and service requirements. Simultaneously, agencies need to share their financial and program information across the entire enterprise. This produces a complicated process, but complexity does not by itself warrant wholesale replacement of these systems.

However, the Commonwealth does not have the standards that would set rules for the independent and localized systems that are the backbone of detailed financial and budgetary transactions and reporting. With the use of properly designed standards, agencies could continue to operate their own systems while providing improved information to the enterprise.

- **Process orientation.** The Commonwealth budgeting process maintains a combination of centralized and distributed functions. On a centralized basis, agencies request appropriations and manage within these controls. On a decentralized basis agencies prepare budgets, reallocate resources within

The Council on Virginia's Future is a catalyst for shifting the Commonwealth from incremental budgeting to performance management.

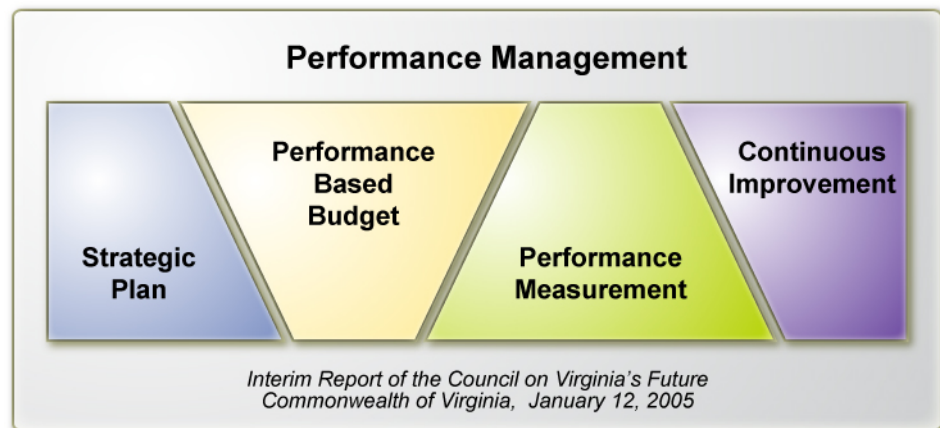
appropriations, and manage at the cost center level. This is a traditional process that is used throughout state governments.

- **In-sourcing, out-sourcing, co-sourcing arrangements.** Currently detail budget preparation activities are conducted directly by the agencies. Every agency has similar processes for developing their biennial budget, but there is no common system for preparing and tracking budgets at the agency level. Many states utilize common systems for projecting personnel costs, benefits, workforce planning, and expenditure forecasting. This service is often in-sourced to a central organization.
- **Legal considerations.** In July 2003, the General Assembly established the Council on Virginia's Future to advise the Governor and the General Assembly on the development of a set of guiding principles that are reflective of public sentiment and relevant to critical decision-making. Specifically, the council has the following responsibilities:
 - Establish a long-term vision of the Commonwealth
 - Recommend long-term objectives for the Commonwealth
 - Align state services to long-term objectives
 - Institute a planning and performance management system consisting of strategic planning, performance and performance measurement, program evaluation, and performance budgeting.

The Council's efforts are supplemental to the Government Performance and Results Act, which requires each agency to develop and maintain a strategic plan for its operations. There is also the Taxpayer's Budget Bill of Rights (2003), requiring more outcome measurements in the Governor's Budget document.

As shown in Exhibit 3-8, a solution in this area will need to be developed consonant with the guidance of the Council, GPRA requirements, and other legal requirements regarding planning, performance measurement and management, and performance budgeting.

Exhibit 3-8 Mandates for Performance-Based Budgeting



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3.4.2.2 Strengths and Weaknesses Review

Throughout the Due Diligence investigation, Commonwealth staff consistently identified the following components of the budgeting process as being well developed with material strengths, as shown in Exhibit 3-9.

Exhibit 3-9 Identified Budgeting Strengths, Due Diligence Survey

Strengths	Staff Comments
WebBears – the Budget Entry and Reporting System, now web-based, permits users to enter budget requests for DPM review.	<p>“WebBears is a very friendly, easy system to use”</p> <p>“On line submission capabilities”</p> <p>“WebBears ability to upload spreadsheet data”</p> <p>“Provides line item budgeting by org level and program”</p>
Base Budget Development Process – the process of developing a base and identifying the annual technical adjustments. The Technical Adjustment process takes into consideration the requirements of capturing one-time events, continuations, mandates, and legislatively authorized adjustments.	<p>“The budget development process is a phased process”</p> <p>“Budget amendments, technical adjustments and base budget adjustments enhance the budget process”</p>
Decision Packages – the methodology for requesting increased funding for agencies based on justified need for program expansion	<p>“Decision package amendment process helps set priorities.”</p> <p>“Decision packages promotes resource competition within a [sic] agency.”</p>
FATS – the Form 27 Automated Transaction System provides the on-line tools required by Agencies to submit appropriation transfers and adjustments	<p>“PROBUD/FATS meets basic budget needs”</p> <p>“FATS is easy to use and very user friendly and it was home grown, can you believe that”</p> <p>“Edit checks ensure that balances are correct”</p> <p>“Appropriations and Allotments control as planned”</p>

Simultaneously, staff identified that the budgeting process is changing and that existing tools and processes can no longer support the new environment. Staff identified in Exhibit 3-10 some of the following weaknesses in the budget development process.

Exhibit 3-10 Identified Budgeting Weaknesses, Due Diligence Survey

Weaknesses	Staff Comments and Recommendations
Strategic Plan Integration – Inability to effectively utilize strategic planning in the budgeting process	<p>“Current systems do not lend themselves to long-term planning”</p> <p>“Top down central budget office directives for strategic planning need to be issued with longer implementation time or be less prescriptive”</p> <p>“Continued difficulty connecting the Strategic Plan to the Agency Budget structure”</p>
Performance Information – Inability to identify meaningful measures and apply them to budgetary decision making. Performance measures have not traditionally aligned with goals and	<p>“Integrate DPB Performance Measurement system with agency systems”</p>

Weaknesses	Staff Comments and Recommendations
objectives	
Position Budgeting –The Commonwealth uses a series of disparate approaches and systems for projecting personnel costs	<p>“Deploy tools for calculating staff costs</p> <p>“More timely processing of budget adjustments, such as regrade information and with more information on calculation methods”</p>
System Integration – Inadequate interfaces exist to state accounting systems (central and local) and to budgetary and HR/payroll systems	<p>“Inadequate linkage between State’s accounting and budgeting systems</p> <p>“Central budget systems are disparate should be integrated”</p> <p>“Budget system has to have a higher degree of interactivity with CARS”</p> <p>“Provide software programs that talk to each other (CARS, FATS, CIPPS, FAACS)”</p>
What-if Analysis and Forecasting – Spreadsheets are the primary tool for “what-if” analysis. This tool has no standard connectivity to enterprise systems and limited ability to collaborate and consolidate findings.	<p>“Provide ability to export budget information into spreadsheets and databases”</p> <p>“System to incorporate some inflationary factors for non-personnel expense”</p> <p>“Need ability to model within the system”</p>
Allocation of Central Appropriation Accounts – The process of allocation pool accounts (wage adjustments, fringe benefits, etc.) is performed by hand	<p>“The method of allocating central appropriation adjustments to agencies such as the annual salary and fringe benefit increase/adjustments is inaccurate and does not reflect vacancies at the time of execution”</p> <p>“Timing of central appropriation/fringe benefit guidance, local government cycles run earlier than the State”</p>
Accounting and Budgetary Detail – central enterprise systems do not support or capture data below the service area and function. Analysts often require additional detail to prepare spending plans and to analyze performance at an activity level.	<p>“The budgeting process has been designed to serve DPB’s requirements. Our agency must budget at multiple levels not just at the DPB level”</p>

3.4.3 Reengineering and Re-solutioning Opportunities

The Council on Virginia’s Future has established a roadmap for creating an environment that facilitates continuous improvement.

The Commonwealth has made a significant investment in correcting and rejuvenating their approach to budgeting. The Council for Virginia’s Future has established the roadmap: now all that is required is for the participants to embark down this wide avenue. Employees and budget stakeholders will learn as they proceed. Over time performance measures will have increasing significance to the budgetary process and provide supplemental proxies for understanding how well governmental activities and programs are performing. However, progress will be stymied without the right tools to assist users in understanding the relationships between goals, objectives, performance measurements, and the budget.

In 1999, members of CGI-AMS conducted a survey of 90 state and local governments to determine what elements of Performance-based budgeting they were using and what made their experience successful. We found that the majority of governments used performance budgeting as a management tool to

evaluate the effectiveness and performance of managers (56%), and a public information tool to provide information on how resources were being spent (43%). Some governments used performance budgeting coupled with some activity-based costing (26%), and as a decision tool as part of a mathematical equation or formula to calculate the budget (4%). Exhibit 3-11 identifies the critical success factors our survey identified for shifting from line item to performance-based budgeting.

Exhibit 3-11 Critical Success Factors for Performance-Based Budgeting

- Existence of a high level champion (e.g., governor or legislature for states)
- Buy-in at all levels of government, from the people collecting and using the data to agency heads, to elected officials
- Using appropriate performance measures in modest quantities, not over-measuring
- Performance measures revised on a regular basis to ensure relevance and consistency with program objectives
- Participants must feel that the performance data are accurate
- A long-term focus on the effort of transitioning from line item to PBB
- Existence of ongoing efforts with strategic planning at the agency level and a link between that process and the budget development/resource allocation process
- Existence of a link between employee performance evaluation and measures
- Explicit orientation of performance measures and systems to support service delivery and improvement or policy making activity----the same measures cannot support both.

Source: CGI-AMS survey, 1999.

A significant part of being a “best managed state” involves budgeting and management practices based on performance.

Despite the difficulty of implementation and the level of commitment required, in our opinion, a significant part of being a “best managed state” involves budgeting and management practices based on performance. This view is supported by the Government Performance Project (GPP) a collaborative venture of the Maxwell School for Citizenship and Public Affairs and the Pew Charitable Trust. Since its original pilot program in 1996 the GPP has provided a comprehensive, independent assessment of state government management. The GPP suggests the following framework, shown in Exhibit 3-12, for improving State budget decision-making, asset allocation, and transparency.

Exhibit 3-12 Framework for State Government Performance Management and Budgeting

State Government Management Element	Desired Characteristics
Performance Budgeting	<ul style="list-style-type: none"> ▪ The State routinely produces valid cost and performance information. ▪ The Governor, budget staff, and state agencies are provided with historical and projected cost and performance information during deliberations on the budget. ▪ The State Legislature is provided with cost and performance information during deliberations on the budget. ▪ Agencies and state officials use cost and performance information to create the budget, develop strategic and operational plans, and review program initiatives.
Performance	<ul style="list-style-type: none"> ▪ Information technology systems provide information

Management

adequate to support managers' needs.

- Agency managers draw clear links between managerial action and program results.
- Agencies regularly monitor performance and use this information to inform elected officials and the public.
- Cost and performance information create a framework for allocating resources and managing results.

The GPP provides a theoretical foundation for performance budgeting and performance management in state governments. However, ultimate project success in Virginia would only come from linking specific business drivers in the Strategic and Service Area Plans to actual outcomes. This information must be linked, consistently tracked, and acted upon to resolve problems and improve operations on a regular and consistent basis. At the State of Florida, performance management was hampered by the State's inability to capture performance measures. Florida state agencies did not have the data systems that could readily generate the needed performance information.⁷

3.4.3.1 Process Recommendation

Collaborative Performance Budgeting shifts decision-making from incremental resource allocation to strategic evaluation and planning.

Collaborative Performance Budgeting. We concur with the appropriateness of the strategic direction of the state in shifting agencies and departments from incremental budgetary decisions to strategic evaluation and management. Currently many of the components of a strategic budgeting process already exist. Agencies currently maintain strategic plans, develop and track performance results, and work diligently to develop statutory and legislative changes that will enhance their ability to service citizens.

However, these budgetary and strategic elements do not exist in a way that can be described as a system. The activities are just now being connected; no single view exists of these varied activities. What is really needed is a collaborative approach where the strategic planning vision is systematized to promote analysis, recommendations, reviews, and policy decisions. This strategic budgeting vision includes the following:

- **Consistency** – Data is directly loaded from the existing HR and Financial Systems to ensure accuracy and reliability. Although information may be modeled and changed for budgetary presentation, accounting history starts with a single source.
- **Workflow and review** – The very nature of budgetary review is escalation. Every decision is reviewed or consolidated for review by more senior management. A systematized approach ensures review, comment, and discussion.
- **Performance management** – A system that will track performance results and document management commitment to future plans. The system will link actual revenues and expenditures by funding source to planned management initiatives.

⁷ *Performance Based Program Budgeting in Context: History and Comparison*. Office of Program and Policy Analysis and Government Accountability, Report No.96-77A, April 1997.

- **Salary forecasting** – Provide the capability to forecast the costs of existing personnel, requested personnel and vacant positions. The system should forecast fringe benefits and allocate costs across the activities, programs, and funds.
- **Priority setting and ranking** – The entire intent of strategic planning is to allocate scarce resources that will maximize service delivery. Every resource from Fees and Grants to IT infrastructure must be consolidated into a programmatic view of service delivery. This is more than a cost accounting exercise; this is the analytical process of ranking alternatives, making difficult choices, and presenting executives and legislatures with a discussion of the rationale and the impacts of these decisions.

Put into this context, traditional line item budgeting, performance measurement subsystem, and standalone strategic plans are set aside. There are now the components of a Collaborative Performance Budgeting System, where budget analysts and agency and legislative staff combine their efforts to improve service delivery.

3.4.3.2 Systems Approach

Performance Budgeting Software. With years of budget system implementation experience in more than 90 public jurisdictions, CGI-AMS understands the fundamentals of a successful budget system and environment. We believe that a new software solution can be the basis for flexible, thriving, performance budgeting environment for the state. Implementing a new system will stimulate acceptance of the budgeting approaches encouraged by the Council on Virginia's Future. By improving the current tools and consolidating all budgeting in a single process, the Commonwealth will be better positioned to shift from line item budgeting to performance management. The fundamental building blocks for a new system will include the following components identified in Exhibit 3-13.

Exhibit 3-13 Performance Budgeting System Features

Required characteristics	Description
Forms	Flexible forms that provide users the ability to build custom data entry forms for performance and financial data that duplicate the analytical forms usually developed in Word or Excel.
Rules	Data entry validation rules for many different sorts of data including accounting codes, program codes, labor categories, priorities and security. Some rules are quite simple, such as formatting; others are quite complex, such as routing workflow and approval. Other rules are designed to prevent data duplication or provide the ability to create follow-up events with reminders. So, a flexible and powerful rules engine that can operate on a single field or multiple fields, one that can review values, create actions, and track follow-through, is important.
Analytics	Provide modeling and "what-if" capabilities.
Workflow and Routing	Workflow that monitors and assigns activities after preliminary tasks have been completed. Management reminders and ticklers can be incorporated within the core system. Users should be notified when it's their turn to initiate services, review a program, provide assistance, or directly service an analyst.

Required characteristics	Description
Messaging and Notification	The system must be able to automatically send messages and reminders to employees or managers whenever work reaches a specific stage or a specific action is required.
Security	Security should be both very restrictive but configurable. Security can be set to be client specific and/or role specific. Security controls access to client information at every level. A role may have access to specific types of information but not for all clients.
Reporting	The system must be integrated with an industry standard reporting and Business Intelligence systems. Access to reports should be tied into the security profiles of the system.
Reorganizations	Governments, on a regular basis, reorganize their activities and service delivery programs. The system must be capable of providing this service on a what-if basis.
Audit Trail	All data entries and changes need to be tracked to ensure accountability and to refresh memories of reasons for change

The budgeting system will provide the following immediate benefits to the Commonwealth:

- **Improved and expanded service and cost reductions.** A budgeting solution specifically designed for the enterprise promotes improved collaboration and communication between employees and their managers; between departments that share a process; or between government employees, citizens, and outside consultants. Agency staff, budget analysts, and executive and legislative staff can work together on a budget or process analysis. Collaboration brings consistency to the interaction, protection against missed steps in a process, a clear definition of who is responsible for each task, and the timetable for finishing it.
- **Lower cost through improved efficiency.** Collaboration eliminates or reduces data errors, re-keying of data, missed steps, and lost ‘paperwork’ that must be found or done over again. This all saves time and money. A focus on business processes leads to their streamlining and simplification. With money and time saved by automating a process, the Commonwealth can then choose some mix of capturing the savings and/or providing additional services with the same personnel. In addition, if employees spend less time completing forms and tracking down problems, they will have more time to spend on analyzing alternatives.
- **Increased managerial control, process visibility, and risk reduction.** Managers typically establish accountability for every action needed to complete a process. Older computer systems offer some control and accountability for the work done by government employees, but forms and paper can still be lost, deadlines dropped, and the proper steps skipped. A collaborative solution contains audit trails, email reminders for deadlines, and is accessible by anyone with a web browser on their computer and the proper security access. This means that work is always available; information can be shared and never needs to be repeated.

3.4.3.3 Organizational Approach or Service Delivery Model

It is envisioned that the solution would be primarily centrally managed by the Department of Planning and Budget. However, some agencies may actually

maintain and manage their own instance of a budgeting system. Remote instances will contain data integration components to make certain that information is consistently forwarded to the executive and enterprise level. By adopting enterprise-wide standards at the onset of the project, localized agency systems can be deployed to meet their unique needs while maintaining transparency across the enterprise.

3.4.3.4 Transition or Implementation Path

The Commonwealth is currently preparing for the next biennium budget (2006-2008). It will be impossible to provide any significant technical assistance to this effort. However, immediately upon completion of the budget, our analysts will seek to interview the participants and obtain their perspectives on what worked well and where issues developed with the revised strategic budgeting process. It would be our intent to work with DPB and representative agencies to provide a comprehensive solution for the 2008-2010 biennium budget. The budget solution in this Initiative is therefore characterized as long-term.

3.4.4 Summary

The Commonwealth is on the cusp “from now to wow.” The strategic budgeting vision has been established and the traditional budgeting processes are now being altered; what is left is the human acceptance required to embrace performance leadership. Implementing performance and strategic planning is insufficient if the senior policymakers fail to drive asset allocation decisions from this information. Specifically, the culture needs to adopt leadership principles and practices that will facilitate success:

- **Set and communicate performance goals.** The goals must be a reach, achievable within five years. Senior managers need to be held responsible for failing to reach intermediate term objectives.
- **Permit staff members to achieve objectives by providing the needed tools and guidance.**
- **Identify problems and highlight them** through measures that track performance and thus demonstrate the importance of resolving the problem.
- **Create an environment for continuous improvement.** Allow problem identification and issue resolution to be one of the most important attributes in earning staff recognition and success.
- **Deemphasize incremental and technical budget decisions.** Change resource allocation to a competition based on service needs, outcomes, performance, and customer benefits.

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